

March 1st, 1880.—Injecting and Special Methods of mounting Microscopical Objects, by Dr. Carl Seiler.

March 1st, 1880.—Observations upon Sponges, by Mr. John Ryder.

March 1st, 1880.—A Plan to show Opaque Objects with the Gas Microscope, by Persifor Frazer.

March 15th, 1880.—Lithological Studies with the Microscope, by Persifor Frazer.

April 5th, 1880.—Histological Studies, by Dr. Seiler.

April 19th, 1880.—Lantern Exhibition, by Mr. Holman and Mr. Ryder.

May 3d, 1880.—Communication upon Fresh-water Sponges, by Mr. E. Potts.

May 17th, 1880.—Communication upon the Eggs of the *matica*, by Mr. E. Potts.

Sept. 6th, 1880.—Life Forms at Atlantic City, by Mr. E. Potts.

Sept. 20th, 1880.—Communication upon the Larvæ of King Crabs, by Mr. E. Potts.

Oct. 14th and 15th, 1880.—Annual Exhibition.

Nov. 1st, 1880.—Report of the Committee on Exhibits and Improvements in Microscopical Science at the Annual Exhibition, by Dr. Hunt.

Nov. 15th, 1880.—Communication upon the Development of the *Pyrulla*, by Mr. Charles Perot.

The following Members and Associates were elected during the year.

Members:—John C. Wilson, Otto Luthy, Howard Kelly.

Associates:—Dr. Joseph Simsohn, Dr. James A. McCoart, Dr. Edward T. Bruen, Dr. John W. Gadsden, Dr. Monroe Bond, Dr. J. H. Wills,

ROBT. J. HESS,
Recorder.

REPORT OF THE CONCHOLOGICAL SECTION.

The Recorder of the Conchological Section respectfully reports that during 1880, Dr. R. Bergh, Dr. W. D. Hartman, and Mr. Angelo Heilprin have presented papers upon the Mollusca, which have been accepted and published in the Academy's Proceedings.

The Section has again lost a valued member, Professor S. S. Haldeman, who died September 10th, 1880. Professor Haldeman manifested his interest by frequent contributions to our Museum, as well as by papers published in the American Journal of Conchology. He also presented to us a number of copies of text and plates of his celebrated monograph upon the Fresh-water Univalve Mollusca of the United States. These the Section reissued, the work having been long out of print, and the sale resulted to its pecuniary advantage.

Mr. George W. Tryon, Jr., Conservator of the Section, reports as follows :

About fifty distinct donations and purchases of recent shells will be found recorded in the detailed list hereunto appended, aggregating 1216 species, represented by 4574 specimens. These have all been carefully determined, labeled, mounted, and placed in the cases.

Mr. Charles F. Parker has, as usual, afforded valuable assistance in preparing these specimens for exhibition.

Mr. John Ford continues to prepare for us sections of univalve shells, showing their internal form and structure. He has presented over fifty of these during the year. We are indebted to Miss Anna T. Jeanes for a number of beautiful glass models of mollusks, and to Mr. Joseph Jeanes for a fine suite of California shells, and mounted linguals of *Chitonidæ*, etc.

Mr. John H. Redfield has presented his entire and very complete collection of *Marginellidæ*.

The U. S. Fish Commission, and Dr W. H. Jones, U. S. N., have presented numerous specimens, both in alcohol and dry.

We have received from Dr. Isaac Lea, the type series of Claiborne (Ala.) Eocene fossils, described and figured in his "Contributions to Geology," numbering 228 species.

Mr. John A. Ryder has prepared a drawing in outline of the gigantic *Architeuthis princeps*, Verrill; although only $\frac{7}{13}$ of the natural size, this drawing is upon a canvas twelve feet in length. It is exhibited upon the wall of the Conchological gallery.

Our collection of fossil shells, the systematic arrangement of which has been so long neglected, has at length, under the competent supervision of Mr. Angelo Heilprin, received that attention which its importance merits. Mr. Heilprin has critically studied

and arranged the whole of the North American Eocene Collection, and is now engaged upon the Miocene. These shells have all been labeled and mounted by Mr. Parker. A suitable label has been placed upon the drawers containing the "Swift Collection," and these have been made accessible to the public. The *Cephalopoda*, *Muricidæ*, *Purpuridæ*, *Fusidæ*, and *Buccinidæ* of the general collection have been rearranged in accordance with the latest information upon these groups; and it is proposed to continue this work of revision upon the other families of marine shells as opportunity offers.

A rearrangement of the Land shells in accordance with the natural groups of Dr. Louis Pfeiffer's "Nomenclator Heliceorum Viventium," and of the Unionidæ, in accordance with the latest edition of Dr. Lea's "Synopsis," will be commenced as soon as possible.

The Museum of Recent Conchology now contains 38,624 trays and 136,387 specimens.

There have been no changes made in the By-Laws of the Section. The officers for 1881 are:

Director—W. S. W. Ruschenberger.

Vice-Director—John Ford.

Recorder—S. Raymond Roberts.

Secretary—John H. Redfield.

Treasurer—Wm. L. Mactier.

Conservator—Geo. W. Tryon, Jr.

Librarian—Edw. J. Nolan.

Respectfully submitted,

S. RAYMOND ROBERTS,

Recorder.

The following are the additions to the Conchological Cabinet received during 1880:

R. Arango. Two hundred and seventy-four species and varieties of Cuban shells.

W. G. Binney. *Helix Mayrani*, Algiers. *Testacella haliotoidea*, England.

John Brazier. *Bythinia hyalina*, from New South Wales. Eighty-four species Land, Fresh-water, and Marine shells from Australia.

J. J. Brown. A collection of mollusks from Florida and Haiti.

W. W. Calkins. *Unio Blandingianus* and *Tritonidea tincta*, Florida.

Caleb Cooke. *Melania scabra*, Zanzibar.

W. H. Dougherty. *Bulimus Schiedeanus*, Coahuila, Mexico.

John Ford. *Arca perata*, Say, Newport, R. I. Five species of marine shells, Atlantic City, N. J. *Mytilus hamatus*, Say, from Seekonk River, Providence, R. I. *Helix tuberculosa*, Conrad, Sinaitic Desert. *Natica duplicata* and *N. heros*, with nidus, ova capsules of *Nassa trivittata*, Atlantic City, N. J. Fine specimen of *Cassia tuberosa*, Bahamas. Over fifty specimens, sections of shells.

Andrew Garrett. *Partula decussata* and *P. ganymedes*, Dominique Is., Marquesas. *P. inflata*, Taiwata, Marquesas. *Partula* (sp.), Moorea, Society Isles. *Trochus trochoidea*, Society Isles. *Cardium* (sp.), Paumotu Is.

E. Hall. A collection of land and fresh-water shells from various localities. Twenty-six species of fresh-water shells.

Dr. W. D. Hartman. Embryonic *Partulae*. *Cyclostoma incomptus*, near Bogota, S. A. *Helix similis*, Fer., Japan. Three species of *Partula* from Marquesas Islands. *Partula Raiatensis* (type) from Raiatea. *Partula approximata*, Raiatea.

Henry Hemphill. Over two hundred species and varieties of California shells.

J. G. Hidalgo. *Murex Tryoni* (type). Lesser Antilles. *Ricinus nodosa*, Brazil.

Anna T. Jeanes. Glass models of twelve species of nudibranchiate mollusks.

Joseph Jeanes. Mounted linguals of thirty-seven species of mollusks. Ninety-nine species and varieties of land, fresh-water and marine shells from California.

Dr. W. H. Jones. Twenty-five species of pelagic mollusks from the Atlantic and Pacific Oceans. *Scyllæa pelagica*. *Orygyrus Keraudrenii*.

Henry C. Lea. Twenty-four species of Claiborne Eocene fossil shells, types of his descriptions.

Dr. Isaac Lea. Type collection of Claiborne (Ala), Eocene shells, consisting of 228 species; arranged as described and figured in his "Contributions to Geology." *Voluta Junonia*, Edgmont Key, Fla.

Joseph Leidy. *Goniobasis proxima*, Say, Piedmont Springs, North Carolina

E. T. Nelson, *Eupleura Tampaensis*, Conr., Tampa Bay, Fla.

T. R. Peale. *Astarte castanea*, Say, Sandy Hook, N. J.

John H. Redfield. Collection of Marginellidae, including several hundred specimens of about two hundred species and varieties. *Spirifer mucronatus*, Hamilton group.

S. R. Roberts. *Macoma balthica*, Linn., Collins' Beach, Del. *Helix cinnamomea*. *Trivia pellucidula*, Sandwich Isles. *Cylin-drella gracilicollis*, *Macroceramus Klatteanus*, Bld. (ex auct.), Port-au-Prince, Hayti.

Dr. W. S. W. Ruschenberger, *Dione lupinaria*, San Blas.

Prof. D. S. Sheldon. *Physa gyrina*, young, Davenport, Iowa.

Hon. F. E. Spinner. Seven lots of marine shells (fifty-six species) from the mouth of St. John's River. Fla.

U. S. Fish Commission. Fifty-four species of marine Mollusca from the New England coast.

H. A. Ward (purchased). Glass models of six species of Cephalopods.

J. F. Whiteaves. Eight species of fluviatile and marine shells, from Queen Charlotte's Isl. and Gulf of St. Lawrence.

REPORT OF THE BOTANICAL SECTION.

The Vice-Director takes much pleasure in reporting to the Academy the continued prosperity of the botanical department, which, in fact, is quite equal to all that can be expected of it, until, by the good fortune of an endowment, funds can be supplied regularly to extend its work. Meetings have been held every month throughout the year except July and August, at each of which valuable communications have been made by various members. Some of the more important of these have been communicated to the general meetings of the Academy, and have found a place in its published proceedings.

The Section now consists of thirty-one members, one having been added during the year.

The Conservator's report to the Section of the condition of the Herbarium has been adopted by the Section as its report to the Academy, and is as follows:—

The accessions to the Academy's Herbarium during the past year have been large and valuable, and the mounting and distribution of the plants received have made large demands upon the time of the Conservator and of the members of the Section who have kindly aided him.

Among the valuable contributions received were the collections of the late Dr. Charles Pickering, made in the years 1844-5, during a journey to Malta, Egypt, Arabia and India, and presented to the Academy by his widow, Mrs. Sarah S. Pickering. The number of species is estimated at about 1500, and, as none of them were named, the labor of distributing them in their proper natural